

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: Wed May 02 14:55:55 EDT 2007

=====

Application No: 10560269 Version No: 1.1

**Input Set:**

**Output Set:**

**Started:** 2007-05-02 14:55:38.804  
**Finished:** 2007-05-02 14:55:39.530  
**Elapsed:** 0 hr(s) 0 min(s) 0 sec(s) 726 ms  
**Total Warnings:** 52  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 52  
**Actual SeqID Count:** 52

**ErrCode                  Error Description**

W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20) This error has occurred more than 20 times, will not be displayed



SEQUENCE LISTING

<110> Segura, Dorotea Raventos  
Mygind, Per Holse  
Hogenhaug, Hans-Henrik Kristensen  
Tossi, Alessandro

<120> Antimicrobial Peptides

<130> 10496.204-US

<140> 10/560,269  
<141> 2005-12-09

<160> 52

<170> PatentIn version 3.4

<210> 1  
<211> 21  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial polypeptide

<220>  
<221> MISC\_FEATURE  
<222> (2)..(2)  
<223> Xaa = leucine, isoleucine, tryptophan or methionine

<220>  
<221> MISC\_FEATURE  
<222> (3)..(3)  
<223> Xaa = leucine, phenylalanine, tryptophan or valine

<220>  
<221> MISC\_FEATURE  
<222> (4)..(4)  
<223> Xaa = serine, glycine, lysine, threonine, arginine, isoleucine, asparagine, aspartic acid or glutamic acid

<220>  
<221> MISC\_FEATURE  
<222> (5)..(5)  
<223> Xaa = lysine, threonine, phenylalanine, arginine, leucine, isoleucine, methionine or serine

<220>  
<221> MISC\_FEATURE  
<222> (6)..(6)  
<223> Xaa = leucine or isoleucine

<220>  
<221> MISC\_FEATURE  
<222> (7)..(7)

```
<223> Xaa = lysine, glycine, arginine, methionine or glutamic acid

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa = lysine, serine, isoleucine, arginine, threonine or
methionine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa = alanine, lysine, threonine, asparagine, arginine or
glutamic acid

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa = alanine, glycine, serine, isoleucine, leucine, threonine,
valine, methionine or tryptophan

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa = serine, arginine, lysine or glutamic acid

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa = lysine, methionine, arginine, histidine, isoleucine,
asparagine or threonine

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa = alanine, valine, isoleucine, leucine, tyrosine,
phenylalanine or threonine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa = leucine, alanine, glycine, cysteine, phenylalanine, valine
or tryptophan

<220>
<221> MISC_FEATURE
<222> (15)..(15)
<223> Xaa = lysine, glutamine, alanine, serine, arginine or glutamic
acid

<220>
<221> MISC_FEATURE
<222> (16)..(16)
<223> Xaa = histidine, glycine, asparagine, arginine, serine,
methionine, isoleucine, valine or aspartic acid

<220>
<221> MISC_FEATURE
```

```
<222>  (17) .. (17)
<223>  Xaa = valine, isoleucine, alanine or phenylalanine

<220>
<221>  MISC_FEATURE
<222>  (18) .. (18)
<223>  Xaa = phenylalanine, leucine, arginine, alanine, glycine, valine,
tyrosine, cysteine or proline

<220>
<221>  MISC_FEATURE
<222>  (19) .. (19)
<223>  Xaa = arginine or is absent

<220>
<221>  MISC_FEATURE
<222>  (20) .. (20)
<223>  Xaa = tryptophan or is absent

<220>
<221>  MISC_FEATURE
<222>  (21) .. (21)
<223>  Xaa = leucine or is absent

<400>  1
```

Gly Xaa  
1 5 10 15

Xaa Xaa Xaa Xaa Xaa  
20

```
<210>  2
<211>  18
<212>  PRT
<213>  Artificial

<220>
<223>  Synthetic antimicrobial peptide

<400>  2
```

Gly Leu Leu Ser Lys Leu Lys Lys Ala Ala Lys Lys Ala Leu Lys His  
1 5 10 15

Val Leu

```
<210>  3
<211>  18
<212>  PRT
<213>  Artificial
```

<220>  
<223> Synthetic antimicrobial peptide

<400> 3

Gly Leu Phe Thr Lys Leu Arg Lys Ala Thr Lys Arg Ile Leu Glu His  
1 5 10 15

Val Leu

<210> 4  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 4

Gly Leu Leu Lys Thr Ile Arg Lys Lys Ile Lys Arg Val Leu Lys His  
1 5 10 15

Val Arg

<210> 5  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 5

Gly Leu Trp Arg Lys Leu Lys Lys Ala Leu Lys Arg Ala Val Gln Gly  
1 5 10 15

Val Arg

<210> 6  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 6

Gly Met Leu Ser Lys Leu Gly Ile Thr Ile Lys Ile Ala Val Lys His  
1 5 10 15

Ile Arg

<210> 7

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 7

Gly Trp Phe Ser Lys Leu Lys Lys Thr Ala Lys Lys Leu Leu Gln Arg  
1 5 10 15

Val Leu

<210> 8

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 8

Gly Met Leu Arg Lys Leu Lys Arg Lys Val Lys Arg Thr Leu Gln His  
1 5 10 15

Val Leu

<210> 9

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 9

Gly Leu Phe Ser Ile Ile Met Arg Ala Val Lys Lys Val Trp Gln Arg

1

5

10

15

Val Arg

<210> 10  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 10

Gly Leu Leu Arg Lys Leu Gly Lys Lys Ile Lys Arg Val Val Lys His  
1 5 10 15

Val Gly

<210> 11  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 11

Gly Trp Phe Asn Lys Leu Lys Thr Lys Ile Lys Lys Thr Leu Lys His  
1 5 10 15

Val Leu

<210> 12  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 12

Gly Leu Leu Glu Lys Leu Arg Lys Ala Leu Lys Arg Ile Leu Gln His  
1 5 10 15

Val Leu

<210> 13  
<211> 18  
<212> PRT  
<213> Artificial  
  
<220>  
<223> Synthetic antimicrobial peptide  
  
<400> 13

Gly Leu Trp Arg Lys Leu Arg Arg Lys Ala Lys Lys Val Leu Gln His  
1 5 10 15

Ile Leu

<210> 14  
<211> 18  
<212> PRT  
<213> Artificial  
  
<220>  
<223> Synthetic antimicrobial peptide  
  
<400> 14

Gly Leu Leu Ser Arg Leu Arg Arg Ala Thr Lys Ile Ile Leu Lys Gly  
1 5 10 15

Ile Arg

<210> 15  
<211> 18  
<212> PRT  
<213> Artificial  
  
<220>  
<223> Synthetic antimicrobial peptide  
  
<400> 15

Gly Leu Trp Asn Met Leu Lys Lys Lys Leu Lys Lys Ile Ala Gln Gly  
1 5 10 15

Ile Arg

<210> 16  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 16

Gly Leu Leu Ser Lys Ile Met Lys Ala Val Lys Arg Thr Leu Lys His  
1 5 10 15

Ile Leu

<210> 17  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 17

Gly Met Leu Ile Lys Leu Glu Met Glu Ala Lys Lys Val Val Lys Asn  
1 5 10 15

Val Leu

<210> 18  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 18

Gly Leu Leu Asn Lys Ile Lys Lys Thr Ile Lys Arg Ala Val Gln His  
1 5 10 15

Val Leu

<210> 19  
<211> 18

<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 19

Gly Leu Leu Ser Lys Leu Lys Lys Thr Val Lys Arg Val Val Lys His  
1 5 10 15

Val Arg

<210> 20  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 20

Gly Leu Leu Ser Lys Ile Arg Lys Lys Leu Lys Arg Val Leu Gln Ser  
1 5 10 15

Ile Arg

<210> 21  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 21

Gly Leu Val Thr Leu Leu Lys Lys Ala Met Lys Asn Ala Leu Glu Asp  
1 5 10 15

Val Leu

<210> 22  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 22

Gly Leu Leu Arg Lys Ile Lys Met Lys Ala Lys Lys Val Leu Lys Asn  
1 5 10 15

Ile Leu

<210> 23  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 23

Gly Leu Phe Arg Lys Leu Arg Lys Lys Val Lys Lys Val Leu Lys His  
1 5 10 15

Val Leu

<210> 24  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 24

Gly Leu Leu Ser Ile Leu Lys Arg Lys Ser Lys Arg Ile Leu Lys His  
1 5 10 15

Ile Leu

<210> 25  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 25

Gly Ile Leu Asn Ile Ile Gly Arg Ala Val Lys Thr Val Leu Glu Ser  
1 5 10 15

Ile Arg

<210> 26

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 26

Gly Leu Leu Ser Met Leu Gly Lys Ala Val Lys Arg Ala Val Gln His  
1 5 10 15

Val Leu

<210> 27

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 27

Gly Ile Leu Asn Lys Leu Arg Lys Lys Leu Lys Arg Val Leu Gln Arg  
1 5 10 15

Ile Leu

<210> 28

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 28

Gly Leu Leu Ser Lys Leu Gly Lys Ala Val Lys Asn Ile Leu Glu Asp

1

5

10

15

Val Val

<210> 29  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 29

Gly Leu Trp Ser Ser Ile Lys Lys Glu Ala Lys His Ala Leu Lys His  
1 5 10 15

Ile Leu

<210> 30  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 30

Gly Leu Leu Ser Lys Leu Lys Arg Lys Ile Lys Lys Ala Val Lys His  
1 5 10 15

Ile Leu

<210> 31  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 31

Gly Leu Phe Arg Lys Leu Lys Lys Thr Ile Lys Arg Val Leu Lys His  
1 5 10 15

Val Pro

<210> 32  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 32

Gly Leu Phe Ser Leu Leu Arg Lys Thr Ile Lys Lys Val Leu Gln His  
1 5 10 15

Ile Arg

<210> 33  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 33

Gly Leu Leu Asn Lys Leu Lys Arg Ala Leu Lys Lys Val Val Lys His  
1 5 10 15

Val Arg

<210> 34  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 34

Gly Trp Leu Arg Lys Ile Gly Lys Ala Val Lys Lys Val Val Lys Arg  
1 5 10 15

Val Leu

<210> 35  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 35

Gly Leu Leu Gly Lys Leu Lys Arg Lys Ile Lys Lys Ala Leu Glu Gly  
1 5 10 15

Ile Arg

<210> 36  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 36

Gly Trp Leu Lys Ile Leu Glu Lys Ala Ala Lys Ile Thr Val Lys Asn  
1 5 10 15

Val Leu

<210> 37  
<211> 18  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 37

Gly Leu Leu Arg Ile Leu Lys Lys Lys Ala Lys Lys Ala Leu Gln His  
1 5 10 15

Ile Leu

<210> 38  
<211> 21

<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 38

Gly Leu Leu Gly Lys Ile Arg Lys Glu Gly Arg Met Phe Trp Arg Val  
1 5 10 15

Phe Arg Arg Trp Leu  
20

<210> 39  
<211> 21  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 39

Gly Leu Leu Arg Lys Leu Arg Lys Glu Val Lys Lys Val Leu Ser Ile  
1 5 10 15

Phe Phe Arg Trp Leu  
20

<210> 40  
<211> 21  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic antimicrobial peptide

<400> 40

Gly Leu Leu Asn Lys Leu Lys Lys Asn Val Lys Asn Ile Val Gln His  
1 5 10 15

Ile Leu Arg Trp Leu  
20

<210> 41  
<211> 21  
<212> PRT  
<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 41

Gly Leu Phe Ser Ile Leu Lys Arg Glu Ile Lys Arg Thr Phe Ser Met  
1 5 10 15

Phe Tyr Arg Trp Leu

20

<210> 42

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 42

Gly Leu Leu Gly Lys Leu Lys Lys Glu Leu Lys Asn Val Leu Glu His  
1 5 10 15

Ile Tyr Arg Trp Leu

20

<210> 43

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 43

Gly Ile Leu Ser Lys Leu Lys Lys Ala Ile Lys Arg Ile Leu Gln Asp  
1 5 10 15

Val Leu Arg Trp Leu

20

<210> 44

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 44

Gly Met Leu Lys Lys Leu Lys Lys Lys Thr Lys Arg Ala Phe Ser Val  
1 5 10 15

Phe Cys Arg Trp Leu  
20

<210> 45

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 45

Gly Ile Leu Ser Met Leu Glu Arg Arg Trp Ser Met Tyr Cys Ser Ile  
1 5 10 15

Phe Cys Arg Trp Leu  
20

<210> 46

<211> 21

<212> PRT

<213> Artificial

<220>

<223> Synthetic antimicrobial peptide

<400> 46

Gly Ile Leu Ser Lys Leu Lys Lys Lys Ala Lys Asn Ala Val Lys Met  
1 5 10 15

Phe Cys Arg Trp Leu  
20

<210> 47

<211> 57

<212> DNA

<213> Artificial

<220>

<223> Synthetic Gen2 gene

<220>

<221> CDS

<222> (1)..(57)

<400> 47

ggc ctg ctg agc aaa ctg aag aag gcg gcg aaa aaa gcg ctg aaa cat  
Gly Leu Leu Ser Lys Leu Lys Lys Ala Ala Lys Lys Ala Leu Lys His  
1 5 10 15

48

gtg ctg tag  
Val Leu

57

<210> 48

<211> 18

<212> PRT

<213> Artificial

<220>

<223> Synthetic Construct

<400> 48

Gly Leu Leu Ser Lys Leu Lys Lys Ala Ala Lys Lys Ala Leu Lys His  
1 5 10 15

Val Leu

<210> 49

<211> 96

<212> DNA

<213> Artificial

<220>

<223> Primer 1 sequence

<400> 49

attattcaga tgctggatcc ggcggaaggc ctgctgagca aactgaagaa ggccggcgaaa

60

aaagcgctga aacatgtgct gtagctcgag attatt

96

<210> 50

<211> 96

<212> DNA

<213> Artificial

<220>

<223> Primer 2 sequence

<400> 50

aataatctcg agctacagca catgtttcag cgcttttgc gccgccttc tcagttgct

60

cagcaggcct tccgcggat ccagcatctg aataat

96

<210> 51  
<211> 20  
<212> DNA  
<213> Artificial

<220>  
<223> Primer 3 sequence

<400> 51  
tgctagttat tgctcagcg 20

<210> 52  
<211> 19  
<212> DNA  
<213> Artificial

<220>  
<223> Primer 4 sequence

<400> 52  
accgtagttg cgcccatcg 19